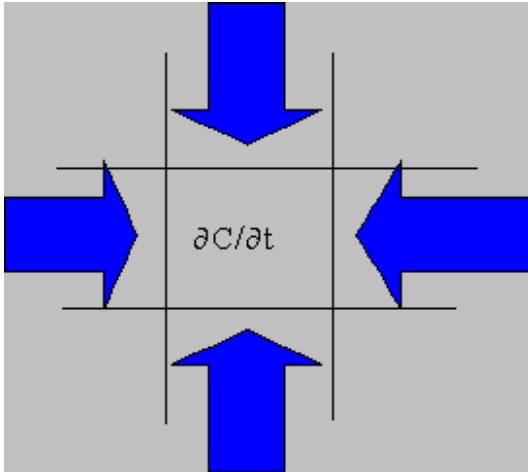


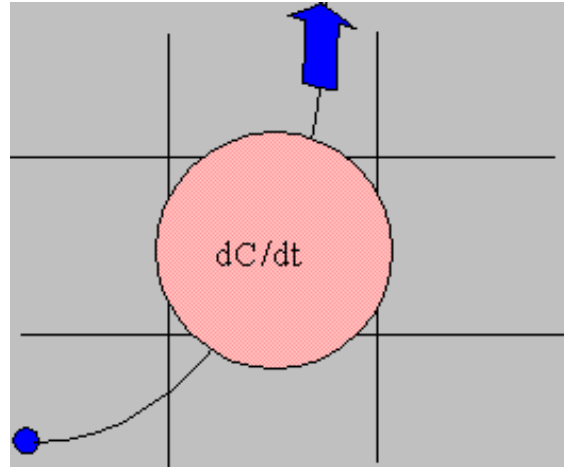
## Computational Method

Eulerian Approach



Local derivative  
Solve over the entire domain  
Ideal for multiple sources  
Easily handles complex chemistry

Lagrangian Approach



Total derivative  
Solve only along the trajectory  
Ideal for single point sources  
Implicit linearity for chemistry

In the Eulerian modeling approach, air concentrations are computed for every grid cell by integrating the pollutant fluxes at each grid cell interface due to diffusion and advection. In the Lagrangian modeling approach, air concentrations are computed by summing the contribution of each pollutant puff that is advected through the grid cell as represented by its trajectory. In a Lagrangian model, modeling the growth of the pollutant puff's 2nd moments or explicitly modeling the growth of a cluster of particles can simulate dispersion. Contrary to its acronym, HYSPLIT can simulate a pollutant distribution starting with a single particle or puff, or by following the dispersive motion of a large number of particles.